Joint Platform Interior Decontamination (JPID)

NBC OAG Decision Brief

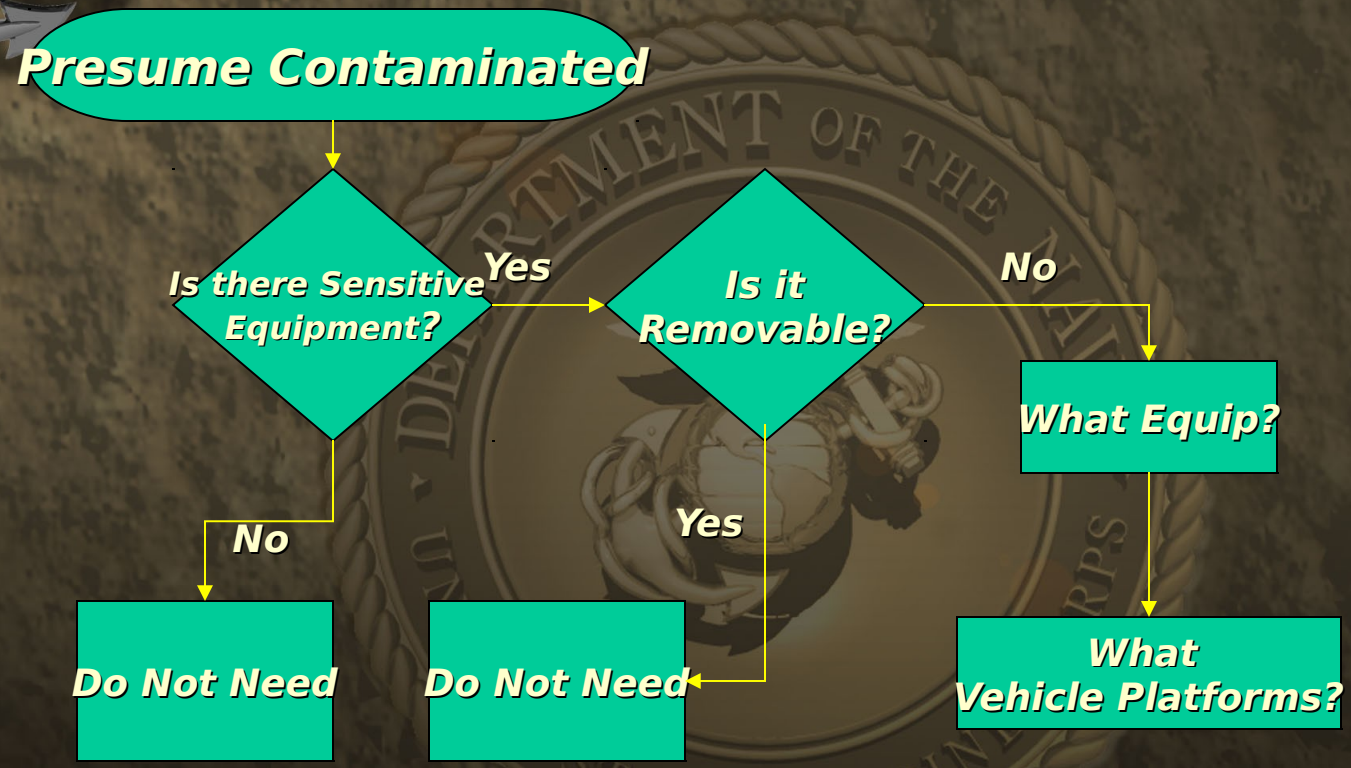
JPID Capability

- **Will provide immediate, operational and thorough decontamination for vehicle platforms that contain sensitive equipment that ***cannot*** be removed from the vehicle platform (i.e. – AAVC7A1, LAV C^2, etc.)**

Current Capabilities Shortfall

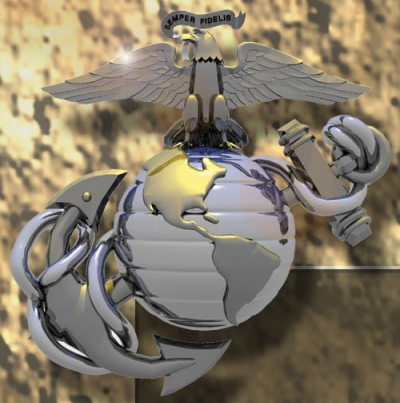
- Current equipment decontamination systems (e.g. M17-series, M100, M291) are not optimally designed to decontaminate vehicle platform interiors and associated sensitive equipment items.

JPID Use Decision Tree



MCCDC Recommendation

- Follow program, but do not plan on JPID acquisition for USMC ground vehicle platforms.
- Rationale:
  - Threat not appropriately characterized.
  - Aviation Community: Already covered by NAVAIRSYSCOM and OPNAV involvement in JPID development (MCCDC in support).
  - Armor community: There is no sensitive equipment on armor vehicles that cannot be removed (Source: MCCDC Armored Vehicle Action Officer).
  - Current TTP (evaluated as most viable approach): Thermal Desorpstion.
    - Involves removing engine heat shields and accelerating the weathering of the agent.
    - Need to incorporate into doctrine (CWO Rogers).



Questions?

Back Up Slides

ORD Requirements

- **Immediate/Operational Decontamination**
  - **Decontaminate Nerve-G, Nerve-V and Blister-H agents of operational significance within 5 minutes contact time to below the level of fielded tactical detectors.**
- **Equipment degradation.**
  - **Decontaminated equipment will incur no more material degradation than that which is allowable in service platform (e.g., aircraft, vehicles) specifications following decontamination**

ORD Requirements (Cont.)

- **Efficacy**
  - **Thorough Decontamination:**
    - **Decontaminate the effects of all current generation chemical and biological warfare agents present on platform interiors and installed sensitive equipment to safe levels within 30 minutes of decontaminant application**

ORD Requirements (Cont)

- Safety.
  - Equipment, subsequent to decontamination, will not present a health or safety hazard to personnel.
- Reliability
  - > 0.85 during 0-6 review Army G-8 wants it to become a KPP.

ORD Requirements (Cont)

- Size
  - Require no more than one warfighter to decontaminate platform interior space to immediate/operational decontamination efficacy levels.

ORD Requirements (Cont)

- Capacity
  - Be capable of decontaminating a minimum of 300 ft^2 of surface area in one application without refilling
  - Not require dedicated mobility platforms
  - One warfighter will be able to completely resupply/replenish a JPID system in less than 30 minutes
  - Not require more than one warfighter to operate or refill

ORD Requirements (Cont)

- Logistics and Readiness
  - Scheduled maintenance will not exceed 30 minutes per preventive maintenance action
  - Preventive Maintenance Checks and Services (PMCS) will not exceed 10 minutes per 12 hours of operating time

ORD Requirements (Cont)

- **Program Support**
  - **Calibration of JPID is not desired; however, if calibration is required, JPID will not require calibration more than once per year.**
- **Human Systems Integration**
  - **JPID will be developed for ease of operation regardless of operator's skill level. Personnel operating this system will have a minimum skill set equal to military entrance requirements**

Fielding Schedule

- IOC
  - Joint IOC is scheduled for FY07. (No funding until 08 program will move to the right)
- FOC
  - Joint FOC is scheduled for FY12 (No funding until 08 program FOC will move to the right).

Program Affordability

- Cost < $15,000
- Cost of Decontaminant < $75.00 per gal (average of 10 gal)
- Life Cycle 10yrs
- O&S (?)
- Disposal Cost (?)

JPID COE Strawman

- If you want it, how would you use it?
  - What Vehicles?
    - Armored Vehicle Action Officers indicate that all sensitive equipment is removable from vehicle platforms.
  - What sensitive equipment?
  - Where would it be stored for combat use? (vehicle mounted, warehouse, log train, etc.)